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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

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June 29, 1993

Donna R. Searcy, Secretary
Federal Communications Commission
Room 222
1919 M Street, NW
Washington DC 20554

Dear Ms. Searcy:

Enclosed for filing with the Commission is an original and nine (9)
copies of the Comments of Thomson Consumer Electronics, Inc.
relating to PR Docket No. 93-61.

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JUN 29 1993

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the matter of

Amendment of Part 90 of the

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PR Docket No. 93-61

Specific Comments

When the Commission adopted the interim rule authorizing Automatic Vehicle Monitoring systems in 1974, there were few, if any, Part 15 devices operating in the 902-928 MHz band. At the present time, however, a wide variety of products, both current and planned, are using these frequencies. Many companies, including Thomson, have invested millions of dollars to develop and bring these products to market. Thomson is concerned that the Commission may not have focused closely enough on various issues, including interference, when the presence of large numbers of Part 15 devices operating in the 902-928 MHz band are considered. Thomson estimates that several million of these devices may be in operation within just a few years.

Thomson is concerned that the proliferation of these Part 15 devices will result in a twofold problem. One problem is succinctly stated in the Comments filed by the Telecommunications Industry Association Mobile & Personal Communications Consumer Radio Section ("TIA"). In their Comments, the TIA described the operating difficulties caused by interference from a Part 15 device operating as a cochannel source. The TIA clearly showed that the accuracy of the LMS system was significantly compromised by the operation of the Part 15 device, such that the overall usefulness of the LMS became questionable. The assumptions made by the TIA, with respect to power levels of the interfering source, for

example, are in line with currently operating and planned equipment. As greater numbers of Part 15 devices are manufactured and sold in the coming years, the problem of cochannel interference will only get worse, with the likely result that the promised accuracy of the LMS systems will be impossible to attain.

The other problem involves interference with the operation of the Part 15 device by the LMS system itself. In preliminary tests conducted by Thomson, a simulated LMS system with a base station power of 100 watts caused noticeable interference with Thomson's wireless headphone product at a distance of up to 1 kilometer. At anticipated higher base station power levels, the zone of interference is likely to be quite large. Other Part 15 devices, such as the new technology 900 MHz cordless telephones, wireless stereo speaker systems and wireless video broadcasting systems are expected to experience interference levels as great or greater than that measured for wireless headphones. Several of these products have been available for a number of years and each represents an investment in time and resources to develop and market. By the time LMS systems become viable and widespread, the quantity of these Part 15 products in use will likely number in the many millions. The permanent authorization of a LMS system that may potentially cause interference with these products would indeed appear to be unwise at this time. In that regard, Thomson concurs with the TIA in its call for further evaluation as to the proper usage and spectrum allocation for LMS services.

In addition to the foregoing, Thomson would like the Commission to consider the following items in its decision whether to delay the permanent authorization for an LMS service in the 902-928 MHz band.

1. Alternative locating systems exist that avoid many of the shortcomings of the pulse-ranging approach currently being considered by the Commission. The Global Positioning System ("GPS"), for example, computes its exact position by the use of signals from satellites. This system is inherently more accurate than the pulse-ranging system and is not compromised by Part 15 devices. A GPS system is likely to be cheaper to implement as well. GPS systems are currently used to locate ships at sea. It seems reasonable to consolidate all locating systems under one technology to gain whatever synergistic effect is possible.
2. Rural areas are unlikely to be covered by a pulse-ranging system since the cost of placing sufficient numbers of base stations would be prohibitive. This shortcoming could become important if, as Petitioners state, the locating system were to be expanded to track individuals as well as automobiles.
3. A pulse-ranging system is not expected to be fully operational for up to ten years. A GPS system, on the other hand, would be in full operation much sooner, since the requirement for base stations would not be present.
4. A pulse-ranging system becomes ineffective over irregular terrain.

Conclusion

Thomson does not deny the benefit of a vehicle locating and tracking system. An economical, accurate means to trace and find stolen vehicles is long overdue. Thomson has serious reservations, however, that the pulse-ranging system being considered by the Commission is the appropriate choice. Tests conducted by the TIA show that certain Part 15 devices operating in the 902-928 MHz band can cause interference with LMS equipment. Thomson's tests clearly indicate that LMS systems can interfere with the proper operation of Part 15 devices. For these reasons, and for the other reasons enumerated above, Thomson urges the Commission to require further testing before adopting regulations that would permanently authorize a location and tracking system that quite possibly could be rendered obsolete before it became fully operational.

Respectfully submitted,

Thomson Consumer Electronics, Inc.

By Lelroy C. Huser
Title Deputy General Counsel

June 29, 1993